

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: March 24, 2010

SUBJECT: PROCUREMENT AUTHORIZATION AMENDMENT
TORONTO-YORK SPADINA SUBWAY EXTENSION PROJECT
CONTRACT NO. A85-75F – SHEPPARD WEST STATION
CONTRACT AMENDMENT NO. 1

ACTION ITEM

RECOMMENDATION

It is recommended that the Commission authorize Contract Amendment No. 1 to AECOM Canada Ltd. (AECOM), in the amount of \$5,750,000.00 for the completion of detailed design and support during construction for the Sheppard West Station, increasing the total upset limit amount to \$13,750,000.00 from \$8,000,000.00.

FUNDING

Sufficient funds for this expenditure are included in the Toronto-York Spadina Subway Extension (TYSSE) Project, as set out on pages 1439 to 1442 of the TTC 2010-2014 Capital Program (Category - Expansion) which was approved by City Council on December 8, 2009.

BACKGROUND

The TTC is implementing the design and construction of an underground subway line from the existing Downsview Station on the Spadina line to the proposed Vaughan Corporate Centre Station located in the City of Vaughan, Region of York. The 8.6 km extension includes six new subway stations, one of which is the Sheppard West Station.

The Toronto-York Spadina Subway Extension (TYSSE) project is being funded by the Federal Government, the Province of Ontario, the Regional Municipality of York and the City of Toronto. The TTC is managing the design and construction of the YYSSE project and will own and operate the subway extension.

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At the Commission Meeting of October 23, 2008, the Commission approved TYSSE's recommendation to award Contract A85-75F for the design of Sheppard West Station to the design team lead by Earth Tech Canada Inc. (now doing business as AECOM Canada Ltd.), in the upset limit amount of \$8,000,000.00. The fee was intended to cover design services for the Sheppard West Station including preliminary design, detailed design; design support during construction, and preparation of record drawings.

At the Commission Meeting on September 24, 2009, the Commission approved the conceptual design of the Sheppard West Station. Public presentation of the station concept took place on November 17, 2009, generally with positive feedback.

GO Transit agreed that the proposed GO Station to be built in conjunction with the subway station would be designed by TTC's Sheppard West Station design consultant. Cost sharing principles have been agreed whereby GO will fund the design and construction costs attributed to GO facilities and sharing of costs for facilities shared with TTC.

Contract A85-75F details are as follows:

Original Contract Upset Limit Amount	\$8,000,000.00
This Contract Amendment	<u>\$5,750,000.00</u>
Total Revised Upset Limit Amount:	\$13,750,000.00

The additional amount being requested includes approximately \$750,000.00 of design fees that will be reimbursed by GO Transit for design of their facilities at Sheppard West Station.

No work has been done on this Contract Amendment.

DISCUSSION

The original upset limit was based on the conceptual station design in the Environmental Assessment report in 2006 with an estimated final cost of \$62M. The design consultant was presented with the TYSSE station design philosophy which emphasizes key elements in the TTC design standards, including bright open spaces maximizing the use of natural light, strong aesthetics and public artwork, column free structures, where possible, with high ceilings, and sustainable design to meet the Toronto Green Standard.

The station design concept was developed with input from the major stakeholders including the City of Toronto Planning, Parc Downsview Park, and GO Transit. The subway station was relocated to centre on the GO Transit right-of-way where a new GO Station is to be constructed. The design includes entrances east and west of the GO right-of-way, providing for an integrated station facility serving both TTC and GO.

The report presented at the September 24, 2009 Commission meeting indicated a capital cost of approximately \$102M i.e. a cost increase of \$40M over the amount originally budgeted for this station, which is to be covered partly by the Project contingency allowance, and partly from cost savings in tunnel construction resulting from this particular station design, and also from cost recovery from GO Transit.

The \$40M cost increase accounted for several conditions not foreseen when the original project budget was established. The station concept presented in the Environmental Assessment required significant modification to fully address field conditions, City planning needs and adoption of updated design criteria. The primary reasons for the increase in the consultant's fees were for scope changes and for concept development to reach a design that was acceptable to the Commission, GO Transit, Park Downsview Parc and the City of Toronto. Additional design activities are summarized as follows:

- High water table requiring special design measures to counteract flotation of the station box, and detailed design of a more robust station structure.
- Lowering the station elevation to accommodate the subway station under the GO track requiring extensive design input to develop a suitable station concept.
- Relocating the station to the east to allow for southerly extension of the existing road network north of Sheppard Avenue, requiring development of design concepts for several station layout alternatives, and detailed design of a subway box structure capable of supporting railway loading under the GO right-of-way.
- GO track diversion to allow for construction of the subway station, requiring development of alternative track alignments for presentation to GO Transit, and detailed design of the selected track alignment.
- Additional station facilities to accommodate the GO station requiring extensive design effort to develop viable alternative layouts and to address GO Transit's needs.
- Sustainability and Toronto Green Standard, requiring additional studies and design.
- Design of permanent structures within the east and west tunnel boring machine launch shafts was transferred from the tunnel design consultant to the station design consultant in order to better coordinate design of fire fighter emergency access shafts, which are located outside of the station box.

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The total upset limit, including design support during construction, will be \$13,750,000.00 which is in line with the Professional Engineers Ontario guidelines for this type of project, and consistent with previous TTC costs.

The actual fees paid will be based on work plans as approved by staff.

JUSTIFICATION

The Contract Amendment is required to pay for the additional engineering costs associated with the increased project work.

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